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#### SUMMARY

# "I understand and adapt before drawing on experience to build relationships and solutions."

A bridge between people and technology. I thrive independently and collaboratively. 29+ years full stack dev, writing, team, and lead experience; 6+ years ML/AI dev and integration, 19+ years master-level cognitive empathy and linguistics study and coaching. https://linkedin.com/in/scottermonkey. Motivated, dependable, well-rounded, innovator.

**People/writing skills relevant to communication, writing, and working with others:** Author of A Practical EmPath: Rewire Your Mind. 19 years' study, practice, and teaching of interpersonal skills, including leadership, group dynamics, mediation, and conflict resolution. 29 years' leadership experience related to software creation, training, mentoring, leadership, communication, media, and community health. 30+ years of technical writing. A couple hundred examples here.

- 2018-2024 designed, coded, trained EmpathyBot ai.
- Machine learning LLMs since 2018: Claude 3.x, Gemini, GPT-3.5 - GPT-4oi, and Perplexity prompt engineering; Copilot; extensive API use; creating experts, chatbots;
- VAs; Agent & prompt chain creation.
- Python since 2015: web dev; automated testing (PyTest);
  Flask; concurrency/multi-threading; RESTful API; OCR;
- NLTK; PyTorch; Scikit-Learn; Pandas.

- Full stack development since 1995: Planning, designing, budgeting, building web/db & SaaS apps; built full-featured WYSIWYG CMS in 1996.
- Front-end since 1995: JavaScript, HTML, CSS; UI/UX Design & build; Adobe Animate; AEM; Photoshop; usability; SEO; 2D/3D animation.
- Database design/use/ETL since 1994:
  PostgreSQL, SQL Server, MySQL, MS Access.

#### **TECHNICAL HIGHLIGHTS**

### Created/trained the full stack of ML/AI "Conversational therapist/personal coach/VA".

- 2018-Current: Empath is a multi-agent AI conversational therapist and personal coach using cognitive empathy to provide free personal coaching and therapy, positively impacts users' mental well-being by providing free support to individuals who might not otherwise have access to such resources..
- Designed, coded, and trained Empath, a natural language processing model initially based on Scott's custom pattern-recognition system created before the advent of large language models.
- Developed an interactive user interface enabling users to assist in training the model by critiquing responses through multi-choice dropdowns, enhancing model accuracy.
- Created a Python/Flask API integrating NLTK to improve sentiment analysis accuracy.
- Implemented a Telegram bot to expand accessibility and user engagement.
- Integrated multi-model auto-switching between Claude 3 Opus, 3.5 Sonnet, and GPT-4o APIs to optimize performance and cost-efficiency.
- Developed a four-agent prompt-chain functionality to enhance efficiency and content moderation:
  - Compressor: Reduces the size of longer user queries to decrease cost.
  - Abuse Detector: Assesses user queries for relevance and appropriateness, enforcing content policies.
  - Coach: Processes user input and drafts responses.
  - Editor: Reviews responses for accuracy, looping back to the Coach if revisions are needed.
- Currently: (a) Replacing last ASP code with Flask to remove dependence on MS IIS and (b) Incorporating RAG (Retrieval-Augmented Generation).

# AI Automation Pipeline & Integration Developer (@ The Critical Update/CreativeRobot.net)

- Designed, developed, and deployed AI-powered marketing tools, including chatbots and custom GPT models, enhancing client engagement and marketing effectiveness.
- Automated a chain of AI systems using Make.com's tools, Google Sheets, OpenAI's GPTs, Anthropic's Claude models, Perplexity, and more to collaboratively analyze market trends, identify target audiences, conduct research, generate and verify content, create images, and auto-post on various social media platforms. This automation increased content output and reduced manual effort.
- Built intelligent auto-reply bots that analyzed social media posts and generated context-aware responses based on campaign-specific parameters, leading to an increase in customer engagement and improving response times.
- Streamlined marketing workflows by integrating multiple AI tools, resulting in an increase in campaign efficiency and saving many hours per week in manual tasks.
- Collaborated to customize AI solutions tailored to client needs, contributing to a growth in client satisfaction.
- Ensured content accuracy and compliance by integrating fact-checking and editing processes within AI workflows, reducing errors.

- Automated complex data and API processing workflows, reducing manual effort and increasing efficiency across multiple departments.
- Developed a Python application that fully automated the processing of hundreds of PDF prescription invoices daily, previously handled manually by the Finance Department. This resulted in a ~90% reduction in processing time and eliminated data entry errors.
- Designed and implemented an automated cloud pipeline using AWS services (Lambda, Glue, Boto3, Athena, Textract, S3) to process large batches of patient records with varied structures. This solution reduced manual processing time and improved data accuracy, saving the company over 500 man-hours per month.
- Used generative AI tools for planning and code/data analysis, leading to innovative solutions and improving project outcomes.
- Trained and mentored an offshore development team, enhancing their proficiency in Python and AWS services, which improved overall team productivity.
- Collaborated in Agile Scrum teams, sometimes leading sprints and other times contributing as a key team member, ensuring timely delivery of projects. Included some pair programming.
- Implemented browser automation, web scraping, and pattern recognition algorithms, streamlining data collection and analysis processes.
- Architected scalable solutions that enhanced system performance and reliability, supporting a growing user base and increasing system uptime.
- Enhanced pharma- and insurance-related applications with automated testing, increasing code coverage and reducing bugs.

**Automated POS data processing** (@ State Park Grocery, TX): Challenge: Process 1000s of XML and PDF files of transaction data (unpredictable structure) exported from POS system. Solution 2023: Built a Python app to fully automate: read the files, map their structure, copy results into a database, data analysis, move completed files, saving the store many hours a week of data entry.

**Full Stack Developer/Lead/Architect** (@ Baystar Group): Completed many projects for them and their clients, including: Managed Russian and Indian teams to build a Craigslist-like site. Various other web/database projects for Baystar's clients during this period. Built a mobile app to display listings from the Nutshell site database. Much managing/planning/creation of architecture, road maps, timelines, and budgeting.

# TIMELINE of a FEW HIGHLIGHTS: FREELANCE, CONTRACT (far more jobs/details provided upon request)

- 2018-2024: **AI Integrator/ML Dev** as OceanMedia/freelancer and The Critical Update/Creative Robot. Creation of ML-based apps, chatbot, custom GPTs, and automation pipelines using various tools, including AWS and Make.com.
- 2022-2023: **Senior Python Dev** for AdhereHealth. Details above.
- 2022: **Python Dev** for Rapid7. Rewrote DevSecOps/Cybersecurity app (multi-system vulnerability, fault-analysis of API data, reporting) to increase performance (multi-threading), modularity, and usability.
- 2021: **Web3/Blockchain API Dev** for Paluritano. Created Python application to mine data from the Hive blockchain, automate API querying to analyze, tally rewards, and create reports for user accounts.
- 2019-2020: **Architect/Full Stack Dev** for Road & Yard Masters. Freelance client. Planned, designed, and coded a web-based and responsive inventory management system. Extensive API creation/use. Full stack. Designed their logo and web site. Automated many processes, saving money and manpower.
- 2016-2019: Lead/Architect/Full Stack Dev for Baystar Group. Details above.
- 2015-2016: **Architect/Full Stack Dev** for Roo Delivery. Designed/built web/db Delivery Logistics app to automate client & delivery requests, driver assigns, routes, loads, tracking.
- 2013: **Contract .Net Dev** for Schlumberger. Created and modified applications to automate and analyze tens-of-thousands of MS Excel workbooks of oil and gas industry data (petroleum engineering), run calculations, validate data accuracy, copy modified data into SQL Server.
- 2007-2014: Technical Consultant & Webmaster for Texas Gulf Bank. Rebuilt site into my CMS.
- 2000-2011: **Tech Consultant/Dev/Team Lead** for Independent Bankers Association of Texas (IBAT).
- 1999-2000: Lead/Webmaster for Trilogy. UI/UX, usability, accessibility, SEO, team building, and team leadership.
- 1998-1999: **Co-founder/Architect/Lead** for Wired Banks. Led team to create web/database application for matching car buyers and lenders, facilitating immediate pre-approval for purchasing.
- 1996: Full Stack Dev for OceanMedia. Created full-featured WYSIWYG CMS.
- 1995-1998: **Database Trainer** for Database Marketing Group. **Software Dev** for Smith Seguin, San Marcos. **Software Dev** for Cinqular Wireless.

# **COMMUNITY CONTRIBUTION**

Currently leading "Practical Empathy Practice Group" (based on my book) (Founded May 2015) - Free meetup group as facilitator/trainer/leader; 2100+ members. Created sister group in Acapulco, Mexico in 2017. Currently leading "Voluntaryists of Austin" (Founded Dec 2014) - Free meetup group; 1100+ members.

### **OTHER ACCOMPLISHMENTS**

- Author of the "A Practical EmPath: Rewire Your Mind" book. Designed cover art.
- Trained teachers at Children's Discovery Center to use my "Practical Empathy" system.
- Created Play to Evolve physical card game, Android version, and free web-app version. Incorporated my EmpathyBot.net a.i. into the game.
- Self-discipline, flexibility, patience, and dedication: Black Belt Shaolin Kung Fu. Currently providing free classes.
- Technical Writing: ML prompting and system messages, 100's of Tech tutorials & docs, educational, and more.

#### **EDUCATION**

- 2008-2009: Adult Continued Education Program: .Net Development Austin Community College 4.0 GPA
- 29+ years of planning, budgeting, design, dev, serving clients, building/leading teams, short/long-term contracts.